

REMARKS/ARGUMENTS

Claims 1-2 and 5-20 are active in this case. Support for the amendment to Claim 1 is found in Claim 3 and the specification on page 4, lines 25-29.

At minimum, Applicants request entry of the amendment as it simplifies the number of claims as well as the issues to be raised on appeal.

No new matter is added.

The rejections of Claims 1, 2, 4-6, 8, 12, 14-16 and 18 under 35 USC 102(b) or of Claims 3,7, 9-11, 13, 17, 19 and 20 under 35 USC 103(a) in view of Ruzicka is respectfully traversed.

As was described previously, the claimed reaction takes place in the gas phase rather than a condensed phase as in the Ruzicka document. As originally presented this was clear from the claims "said cyclization takes place in the gas phase." To make this aspect of the reaction more clear, Applicants have amended claim 1 to stated that the compound of formula (II) is evaporated and then passed at a desired reaction temperature in gaseous form over the catalyst arranged in a fixed bed.

The Office rejected the difference in reactions based on unsubstantiated position that similarity in temperatures of the temperature range in Ruzicka and that defined in claim 2 would mean that the Ruzicka reaction inherently takes place in the gas phase (see page 4 of the Official Action). This conclusion, however, is not correct.

As was described previously, the process described in Ruzicka is making macrocyclic ketones by cyclization of dicarboxylic acid at a temperature of 300 to 500 C using titanium hydroxide or titanium oxide. (see Example 1, col. 2). Also described by Ruzicka is the use of titanium salts of the starting materials or mixtures of 1,14 dicarboxylic acid with titanium dioxide or titanium hydroxide (see all of the Examples of Ruzicka). At the temperatures used

in Ruzicka, e.g., 300 to 550 C, these mixtures will also form corresponding titanium salts of the starting materials. Such salts are not volatile at the temperature in which the reaction is conducted and therefore, the cyclization in Ruzicka **must** take place in a condensed phase—the only reaction component that is evaporated is the final cyclized product. There is no evidence proffered to the Office that would warrant an opposite conclusion because there is none. Applicants have explained quite clearly that Ruzicka's reaction takes place in a condensed phase and NOT a gas phase as claimed because, again, the corresponding titanium salts that form in the Ruzicka reaction are not volatile at the reaction temperature therefore, regardless of similarity in temperature, the cyclization reaction has to take place in the condensed phase otherwise no reaction would occur.

There is nothing in Ruzicka which would lead one to carry out the cyclization reaction in the gas phase and, in fact, one following the teachings in Ruzicka would conduct the reaction in the condensed phase because that is what is required.

As discussed in the specification, prior methods, including that described by Ruzicka, had many disadvantages. In fact, in Ruzicka's disclosure, he teaches heating the acid with the catalyst (see Examples 2 and 4), which would lead to a multitude of side reactions and decrease the selectivity and efficiency of the reaction. In contrast, as discussed in the present specification, the Applicants have found that by evaporating the educt and then passing it over the fixed bed catalyst, the selectivity of the reaction (and therefore the efficiency of the reaction) is much improved, even greater than 90% (see Examples 1 and 2 in the specification). This is a significant advance in the field and is not described or suggested by Ruzicka.

Finally, it is noted that none of the conclusions in the obviousness rejection are supported by evidence from the Ruzicka disclosure itself or other relevant art, technical information, and/or publications.

Application No. 10/519,549  
Reply to Office Action of May 8, 2006

The claimed invention is not inherently anticipated by nor could not have been obvious based on Ruzicka. Withdrawal of these rejections is requested.

A Notice of Allowance for all pending claims is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even form for allowance, he is encouraged to contact Applicants' undersigned representative.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Norman F. Oblon



---

Daniel J. Pereira  
Registration No. 45,518

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)